

What is claimed is:

1. A suture strand suitable for use as a suture or ligature, comprising:

a core including a plurality of core fibers made of a first material; and

a cover surrounding the core, the cover including a plurality of cover fibers made of a second material different than the first material.
2. A suture strand according to claim 1, wherein the core fibers are arranged in a twisted bundle.
3. A suture strand according to claim 1, wherein the core consists solely of core fibers of the first material.
4. A suture strand according to claim 1, wherein the plurality of cover fibers are arranged to form a woven annular braid.
5. A suture strand according to claim 1, wherein the cover consists solely of cover fibers of the second material.
6. A suture strand according to claim 1, wherein the first material comprises a high tensile strength material.
7. A suture strand according to claim 1, wherein the first material is a high molecular weight, high tenacity material.
8. A suture strand according to claim 1, wherein the first material is ultrahigh molecular weight long chain polyethylene.

9. A suture strand according to claim 1, wherein the second material is a polymeric material selected from the group consisting of PET, polyester, coated urethanes, and mixtures thereof.

10. A suture strand according to claim 1, wherein the second material is substantially opaque.

11. A suture strand according to claim 1, wherein the first material is substantially transparent.

12. A suture strand according to claim 1, wherein each of the core fibers comprises a bundle of filaments of the first material.

13. A suture strand according to claim 1, wherein each of the cover fibers comprises a bundle of filaments of the second material.

14. A suture strand according to claim 1, wherein each of the core fibers is substantially circular in cross section.

15. A suture strand according to claim 1, wherein each of the core fibers is substantially wedge-shaped in cross-section.

16. A suture strand according to claim 1, wherein the core comprises:

a sub-core comprising at least one core fiber; and

an outer ring comprising a plurality of core fibers surrounding the sub-core.

17. A suture strand according to claim 16, wherein the sub-core comprises a single core fiber.

18. A suture strand according to claim 16, wherein the sub-core comprises a plurality of core fibers arranged in a twisted bundle.

19. A suture strand according to claim 16, wherein the outer ring comprises an annular woven braid of core fibers.

20. A suture strand according to claim 14, wherein:

each of the cover fibers is substantially circular in cross-section and has a first diameter; and

each of the core fibers has a diameter greater than the first diameter.

21. A suture strand according to claim 15, wherein:

each of the cover fibers is substantially circular in cross-section and has a first diameter; and

each of the core fibers has a length greater than the first diameter.

22. A suture strand according to claim 1, wherein:

each of the cover fibers comprises a bundle of cover filaments, each cover filament having a substantially circular cross-section and a cover filament diameter; and

each of the core fibers comprises a bundle of core filaments, each core filament
5 having a substantially circular cross-section and a core filament diameter, wherein the core filament diameter of each of the core filaments is greater than the cover filament diameter of any of the cover filaments.

23. A suture strand suitable for use as a suture or ligature, comprising:

a core including a plurality of core fibers consisting solely of a first material;
10 and

a cover surrounding the core, the cover including a plurality of cover fibers consisting solely of a second material different than the first material.

24. A suture strand according to claim 23, wherein the first material comprises a high tensile strength material.

25. A suture strand according to claim 23, wherein the first material is a high molecular weight, high tenacity material.

26. A suture strand according to claim 23, wherein the first material is ultrahigh molecular weight long chain polyethylene.

27. A suture strand according to claim 23, wherein the second material is a polymeric material selected from the group consisting of PET, polyester, coated urethanes, and mixtures thereof.

28. A suture strand according to claim 23, wherein the second material is substantially opaque.

29. A suture strand according to claim 23, wherein the first material is substantially transparent.

30. A suture strand according to claim 23, wherein the core comprises:

a sub-core comprising at least one core fiber; and

an outer ring comprising a plurality of core fibers surrounding the sub-core.

31. A suture strand according to claim 30, wherein the sub-core comprises a single core fiber.

32. A suture strand according to claim 30, wherein the sub-core comprises a plurality of core fibers arranged in a twisted bundle.

33. A suture strand according to claim 30, wherein the outer ring comprises an annular woven braid of core fibers.